

## **Patterns of food thermal processing in electric deep fat fryers ireka. Gaysin**

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### **Abstract**

© Research India Publications. This paper deals with the studies of thermal processes occurring when heating a large volume of oil in continuous electric deep fat fryers with output of up to 150 kg/h, and during food roasting. The paper presents the results of experimental studies of the double deep fat fryer heating process, and their procedure. As a result of the conducted studies, we obtained the temperature-process time relationship  $t$  and the coefficient of heat transfer from the surface of the tubular electric heaters to oil. Obtaining experimental data on food heat treatment will ensure direct control of its quality and the quality of fry oil used for this process. Much attention was given to analyze the influence of fried food on thermal processing conditions. Special attention was paid to the design of a deep fat fryer and its main units, directly affecting the results of the experiments. Food deep frying improvement is a relevant task, since the existing methods of frying and the frying machines do not meet the growing demands of industrial technology. Main objective of this paper is to accumulate experimental data for further research on the development of reliable calculation methods and design principles of similar devices.

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### **Keywords**

Deep fat, Frying, Temperature, Thermocouple